

AMENDMENTS TO THE CLAIMS

A Listing of Claims is provided as follows and will replace any previous listing. No new matter has been added.

Listing of Claims:

1. (Currently Amended) A fuel cell for generating an electric power by supplying one electrode with a fuel and the other electrode with an oxidant, the fuel cell comprising:
a catalyst layer formed on at least one surface of at least one of the one electrode and the other electrode,
wherein the catalyst layer is a layer comprising a mixture of catalyst particles and other particles,
the catalyst layer is obtained by chemically bonding a molecule comprising an ion-conducting functional group serving as an electrolyte ~~is chemically bonded to a surface of the other particles~~ and then mixing the other particles and the catalyst particles,
the chemical bond is ~~at least one bond selected from the group consisting of a covalent bond, an ionic bond, a coordinate bond and a metallic bond~~ formed by an elimination reaction, and
the other particles are inorganic particles that comprise at least one selected from the group consisting of silica, alumina, quartz, glass, ceramics and mica.
2. (Original) The fuel cell according to claim 1, wherein the molecule comprising the ion-conducting functional group has a mean molecular weight of 40 to 10,000.
3. (Original) The fuel cell according to claim 1, wherein the molecule comprising the ion-conducting functional group comprises at least one selected from the group consisting of fluorocarbon and hydrocarbon.
4. (Original) The fuel cell according to claim 1, wherein the ion-conducting functional group is a proton dissociating functional group.

5. (Original) The fuel cell according to claim 4, wherein the proton dissociating functional group is at least one functional group selected from the group consisting of a phosphonyl group, a phosphinyl group, a sulfonyl group, a sulfinic group, a sulfonic group and a carboxyl group.

6. (Original) The fuel cell according to claim 1, wherein the ion-conducting functional group is a hydrogen bondable functional group.

7. (Original) The fuel cell according to claim 6, wherein the hydrogen bondable functional group is at least one functional group selected from the group consisting of a mercapto group, an ether linkage group, a nitro group, a hydroxyl group, a quaternary ammonium base and an amino group.

8-9. (Canceled)

10. (Original) The fuel cell according to claim 1, wherein the chemical bond is a bond via an oxygen atom.

11. (Original) The fuel cell according to claim 1, wherein the catalyst particles comprise at least one selected from the group consisting of platinum, gold, palladium, nickel, rhodium, cobalt, iridium, osmium and iron.

12. (Original) The fuel cell according to claim 1, wherein the catalyst layer further comprises an electron conductor.

13. (Original) The fuel cell according to claim 12, wherein the electron conductor is carbon.

14-15. (Canceled)

16. (Previously Presented) The fuel cell according to claim [[14]] 1, wherein the inorganic particles have a mean particle diameter ranging from 0.1 to 100 μm .

17-18. (Canceled)

19. (Original) The fuel cell according to claim 1, wherein the catalyst layer has a thickness ranging from 0.1 to 10000 μm .

20. (New) The fuel cell according to claim 1, wherein the elimination reaction is one of dealcoholization or dehydrochlorination.